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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/716,426	11/20/2003	Eli Kritchman	P-3403-US1	6957

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EXAMINER

TENTONI, LEO B

ART UNIT	PAPER NUMBER
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1732

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/18/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/716,426

Applicant(s)

KRITCHMAN ET AL.

Examiner

Leo B. Tentoni

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 8, 9, 11, 13, 21-25 and 31-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 8, 9, 11, 13, 21-25 and 31-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-4, 8, 9, 11, 13, 21-25 and 31-39 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The newly-claimed aspects of "at least part of a support structure" (claim 1, line 4; claim 21, line 4), "self-supporting" (claim 1, line 8), "said pillar not being in contact with said three-dimensional object" (claim 1, lines 9 and 10), "said container and said support material comprising a support structure for said three-dimensional object" (claim 21, lines 9 and 10), "said support structure comprises a mixture of said build material and said support material within said container" (claim 24, lines 1-3), "a plurality of fine pillars which are not in contact with

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said three-dimensional object" (claim 31, lines 5 and 6), "said pillars being surrounded by said support material and separated from said three-dimensional object by a release layer of said support material" (claim 31, lines 6-8) and "constructing membranes of said build material or a combination of said build material and said support material between said pillars" (claim 32, lines 2 and 3) are not supported by the originally-filed specification and thus, constitute new matter.

3. Claims 1-4, 8, 9, 11, 13, 21-25 and 31-39 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The originally-filed specification does not state or teach one of ordinary skill in the art what part (or how much) of a support structure is made of a first material (claim 1, line 4; claim 21, line 4), how and under what conditions a support structure is self-supporting (claim 1, line 8), how a pillar (which is a support structure) is not in contact with a three-dimensional object it is supposed to support (claim 1, lines 9 and 10), how a container and a support material comprise a support structure for a three-dimensional object (claim 21,

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lines 9 and 10), how a support structure comprises a mixture of build material and support material within a container (claim 24, lines 1-3), how a plurality of fine pillars are not in contact with said three-dimensional object they are supposed to support (claim 31, lines 5 and 6), how pillars are surrounded by support material and separated from a three-dimensional object by a release layer of a support material (claim 31, lines 6-8) and how membranes are constructed of a build material or a combination of a build material and a support material between pillars (claim 32, lines 2 and 3). Without this disclosure, one of ordinary skill in the art could not practice the claimed invention (In re Wands, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988); MPEP 2164.01, 2164.01(a).

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-4, 8, 9, 11, 13, 21-25 and 31-39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The newly-claimed expressions "at least part of a support structure" (claim 1, line 4; claim 21, line 4), "self-

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supporting" (claim 1, line 8), "said pillar not being in contact with said three-dimensional object" (claim 1, lines 9 and 10), "said container and said support material comprising a support structure for said three-dimensional object" (claim 21, lines 9 and 10), "said support structure comprises a mixture of said build material and said support material within said container" (claim 24, lines 1-3), "a plurality of fine pillars which are not in contact with said three-dimensional object" (claim 31, lines 5 and 6), "said pillars being surrounded by said support material and separated from said three-dimensional object by a release layer of said support material" (claim 31, lines 6-8) and "constructing membranes of said build material or a combination of said build material and said support material between said pillars" (claim 32, lines 2 and 3) render the claims indefinite principally because it is not clear what applicant intends to cover by such expressions. For example, it is not clear what part (or how much) of a support structure is made of a first material (claim 1, line 4; claim 21, line 4), how and under what conditions a support structure is self-supporting (claim 1, line 8), how a pillar (which is a support structure) is not in contact with a three-dimensional object it is supposed to support (claim 1, lines 9 and 10), how a container and a support material comprise a support structure

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for a three-dimensional object (claim 21, lines 9 and 10), how a support structure comprises a mixture of build material and support material within a container (claim 24, lines 1-3), how a plurality of fine pillars are not in contact with a three-dimensional object they are supposed to support (claim 31, lines 5 and 6), how pillars are surrounded by support material and separated from a three-dimensional object by a release layer of a support material (claim 31, lines 6-8) and how membranes are constructed of a build material or a combination of a build material and a support material between pillars (claim 32, lines 2 and 3).

Response to Arguments

6. Applicant's arguments with respect to claims 1-4, 8, 9, 11, 13, 21-25 and 31-39 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this

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action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leo B. Tentoni whose telephone number is (571) 272-1209. The examiner can normally be reached on Monday - Friday (6:30 A.M. - 3:00 P.M.) .

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina A. Johnson can be reached on (571) 272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Leo B. Tentoni
Primary Examiner
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lbt